



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,693	02/02/2001	Katsuhisa Matsuura	Q62933	7884

7590 03/03/2004

Sughrue, Mion, Zinn,
MacPeak and Seas
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER

CHIANG, JACK

ART UNIT	PAPER NUMBER
----------	--------------

2642

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

89/773 693

Applicant(s)

Matsuura et al.

Examiner

J. Chiang

Group Art Unit

2642

9

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 1-23
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-23 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☐ Claim(s) _____ is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of References Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

CLAIMS

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Namiki (JP 4-355642).

Regarding claim 1, Namiki shows a vibrator comprising:

A stator (2) formed of a permanent magnet (N, S) magnetized in an axial direction to have magnetic poles at a plurality of directions in a circumferential direction, the magnet (N, S) having a ring-like configuration;

A rotor (see 1) having an armature (see 1) located opposite to the to the magnet eccentrically fixed to the rotation shaft (3);

Current path formation means (4, 5) comprising a commutator (4-1, 4-2) and a brush (5) for supplying to the armature current whose polarity is substantially reversed along with the rotation of the rotor;

Wherein the armature (1) is provided with a first coil (1-2) and a separate second coil (1-1) arranged in such a manner that the spatial phase becomes equal to each other, and the current means (4-5) supplies the current to the first and second coils (1-2, 1-1,

Art Unit: 2642

see English translation) respectively by making the electric phase different from each other (see fig. 1).

Regarding claim 22, Namiki shows a vibrator comprising:

A rotor (see 1) is rotatably provided with respect to a stator (2) formed of a permanent magnet (N, S) magnetized in an axial direction to have magnetic poles at a plurality of directions in a circumferential direction, the magnet (N, S) having a ring-like configuration, the armature (see 1) located opposite to the magnet of the rotor is eccentrically fixed to the rotation shaft (see 3) and a current path for supplying to the armature current whose polarity is substantially reversed along with the rotation of the rotor is formed of current path formation means (4-5) comprising a commutator (4-1, 4-2) and a brush (5), the structure comprising a first coil (1-2) and a separate second coil (1-1) arranged so that the spatial phase becomes equal to each other,

Wherein the current supplied to the first and second coils (1-2, 1-1) respectively by making different the electric phase with the current path formation means (fig. 1).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Namiki in view of Taketoshi (JP 10336983).

Art Unit: 2642

Regarding claims 4 and 11, Namiki shows the first and second coils (1-2, 1-1).

Namiki differs from the claimed invention in that it does not show a third coil and a position regulation pin.

However, it is commonly seen that vibrator could have three coils, this is shown by Taketoshi (coils 6a-6c in fig. 12). Taketoshi further shows a position regulation pin (20).

Hence, it would have been obvious for one skilled in the art to modify Namiki with a different number of coils as taught by Taketoshi, this simply can be considered as a design preference and a variation of Namiki, because more coils would create electrical phases which would vibrate in a different patterns, however, the basic concept of the vibrator is substantially unchanged.

Regarding claims 2-21, 23, the combination of Namiki and Taketoshi shows:

The second coil is inside the first coil (1-1, 1-2 in Namiki);

The four magnetic poles (see N, S);

The size of the coils (1-1, 1-2) are coaxially wound to cover one to two magnetic poles (see fig. 1), and one end of the coils are commonly connected (see English translation);

The commutator (4-1, 4-2) is attached on the rotor (see 1), and its connection with the coils (1-1, 1-2);

A weight (the weight of 1) and the coils (1-1, 1-2);

The two brushes (5 in Mamiki; 9 in Taketoshi) are attached on the stator (2 in Mamiki; 21 in Taketoshi), and have a spatial phase difference of 90° to the commutator (see Taketoshi);


A third coil (fig. 12 in Taketoshi); and

A position regulation pin or a pin (20 in Taketoshi).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Chiang whose telephone number is 703-305-4728. The examiner can normally be reached on Mon.-Fri. from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 703-305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jack Chiang
Primary Examiner
Art Unit 2642